UNIVERSITY OF ALASKA

Project Name: UAA KPC Career and Technical Education Center

MAU: UAA

Building:	New	Date:	11/1/2010
Campus:	Kenai River Campus	Prepared by:	FP&C
Project #:	10-0013	Acct #:	FY11 GO Bond

Total GSF Affected by Project:		16,000	
PROJECT BUDGET		FPA Budget	SDA Budget
A. Professional Services			
Advance Planning, Program Development			
Consultant: Design Services (Including Backfill)		$ 1,000,000	
Consultant: Construction Phase Services			
Consul: Extra Services (List:_____)			
Site Survey		$ 10,000	
Soils Testing & Engineering		$ 20,000	
Special Inspections		$ 80,000	
Plan Review Fees / Permits		$ 50,000	
Other			
Professional Services Subtotal		**$ 1,160,000**	**0**
B. Construction			
General Construction Contract(s)		$ 8,000,000	
Backfill Renovation		$ 1,500,000	
Construction Contingency	10%	$ 800,000	
Construction Subtotal		**$ 10,300,000**	**0**
Construction Cost per GSF		*$ 644*	
C. Building Completion Activity			
Equipment		$ 190,000	
Process Tech Equipment		$ 1,500,000	
Furnishings	3%	$ 240,000	
Signage not in construction contract		$ 15,000	
Move-Out Costs		$ -	
Move-In Costs		$ -	
Art	1%	$ 80,000	
Other (Interim Space Needs or Temp Reloc. Costs)		$ -	
OIT Support		$ -	
Maintenance Operation Support		$ -	
Building Completion Activity Subtotal		**$ 2,025,000**	**0**
D. Owner Activities & Administrative Costs			
Project Plng, Staff Support	2%	$ 290,000	
Project Management	5%	$ 725,000	
Misc. Expenses: Advertising, Printing, Supplies, Etc.		included above	
Owner Activities & Administrative Costs Subtotal		**$ 1,015,000**	**0**
E. Total Project Cost		**$ 14,500,000**	**0**
Total Project Cost per GSF		*$ 906*	
F. Total Appropriation(s)		**$ 14,500,000**	

UNIVERSITY OF ALASKA
ANCHORAGE

FORMAL PROJECT APPROVAL

Name of Project: KPC Career & Technical Education Center

Location of Project: UAA KPC Kenai River Campus, Kenai, AK

Project Number: 08-0025

Date of Request: January 14, 2011

Total Project Cost:	$14,500,000
Approval Required:	Formal Project Approval
Prior Approvals:	Preliminary Administrative Approval

Reference Materials:
Proposed Project Budget
Business Plan

KRC Career & Technical Center

KRC Career & Technical Center

- **Statement of Need**
  - New facility approximately 15,000 GSF; $14.5M
  - Process technology, electronics technology, instrumentation, occupational safety & health
    - Cannot meet industry and student demand
    - Additional instructional & lab space critical to teaching to industry standards
    - Cannot house additional process simulation aides such as a distillation unit or upgrade present equipment as utility infrastructure is at capacity
  - 5,086 sf becomes available in main campus bldg.
  - $155K for M&R, $60K for operating costs annually

KRC Career & Technical Center

Strategic Plan Alignment

- Supports the UA, UAA and KPC Strategic Plans
- Supports the UA Academic Plan
- KPC birthplace of oil industry training in AK
  - #1 new KPC construction project for last 3 yrs
- In compliance with the KPC Campus Master Plan
  - Campus Master Plan-"…KPC is out of space. The college lacks the facilities to grow to meet demand."
  - Cannot expand present space without impacting other KRC programs
  - Present facility will not support needed utility infrastructure for lab equipment upgrades

KRC Career & Technical Center

Program Statistics

- Three programs Process Technology, Instrumentation and Electronics accounted for 14% of KPC credits in AY09
- Students that admit to Process Tech program wait one semester to take intro course
- High Demand (HD) courses are space constrained

KRC Career & Technical Center

Need for Increased Capacity

- AK DOL predicts ↑5.7% in oil/gas jobs (2008-18)
- BP to hire 100 process operators annually for next 3 yrs
  - Does not include other majors or contractor hires
- KRC has 100+ PRT majors;
  - 314 students taking PRT courses
  - 25 graduated Spring 10; 90% are working
  - KPC HD grads ↑258% (26 to 93) since 2000
- Student Requirements & Industry Demand not being met
  - Facility will allow for 25% capacity increase

KRC Career & Technical Center

What Will be Built…

- Site across campus parking lot to continue quad effect as recommended in the Campus Master Plan
- Facility would include --4 labs, one shop w/high bay, 4 classrooms, 6 faculty & 2 staff offices, conference room, DE classroom, student commons
- Improved lab flow using new and some existing simulation equipment
  - $1.5M in budget for new equipment

KRC Career & Technical Center

Backfill/Remodel

- Nursing—Program space grows from 443 sf. to 1,500 sf
- Paramedic—Program space grows from 780 sf to 1,800 sf
- Art Programs
  - Ceramics/sculpture—Program space grows733 sf to 1,500 sf
  - Painting, drawing, 2-D design—1,500 sf to 2,500 sf

- FY13 budget request will have $1.26M in for backfill/renewal

- If any Remaining GO funds, they'll be used for
  - Backfill Planning, Program Design and Construction

KRC Career & Technical Center

KPC Campus Master Plan Alignment—Bacfill/Remodel

- Backfill plan consistent with Master Plan
- "Move the emergency medical services and nursing labs and classrooms from the second floor of the Ward and Goodrich Buildings into the area being vacated by the process technology and instrumentation labs on the first floor of the Goodrich building. This would provide badly needed space for these programs."

KRC Career & Technical Center

Implementation Schedule

DESIGN

Conceptual Design	June 2010
Formal Project Approval	February 2011
Schematic Design	May 2011
Schematic Design Approval	June 2011
Construction Documents	November 2011

BID & AWARD

Advertise and Bid	December 2011
Construction Contract Award	February 2012

CONSTRUCTION

Start of Construction	April 2012
Date of Beneficial Occupancy	Summer 2013

KRC Career & Technical Center

Marketing

- Major oil producers in Alaska have stated that the KPC process technology program is the best in the country
- In 2008, Chevron donated $500,000 to the KPC programs that will be housed in the new facility
- In 2010, BP donated more than $250,000 in equipment and $75,000 in cash for the process technology program
- REC Silicon LLC., Moses Lake, Wash., recruited for up to 20 KPC operators in Summer 2010 only two were hired as all other had jobs.
- Will provide training for ExxonMobil Pt Thomson project

Kenai Peninsula College Business Plan

Kenai River Campus Career & Technical Center

1/11/2011

Executive Summary

The UAA Kenai Peninsula College (KPC) proposes to build a 15,000 gross square foot Career and Technical Center to house their growing high-demand, workforce development programs in process technology, industrial process instrumentation, computer electronics and occupational safety & health. The ultimate size of the building will be determined during the programming and design process. Industry and student demand for these programs continues to grow and the college cannot adequately meet the present or expected future demand for graduates in these high demand jobs as identified by the Alaska Dept. of Labor.

KPC's ability to fulfill this mission is severely restricted by aging, undersized facilities that are neither large enough nor have the necessary infrastructure to support equipment meeting current industry standards. The proposed KPC Career & Technical Education Center will allow KPC to meet its mission and provide facilities that have the flexibility to meet future training demands as technology continues to evolve.

The new space will increase teaching and lab space by approximately 11,000 square feet enabling these programs to better utilize existing and new equipment that meet industry standards in less crowded conditions. It will also free approximately 5,086 square feet in the main campus building. Planning and design for the backfill is included in this project and UAA has submitted a capital budget request of $1,264,000 in the FY13 budget to complete the renovation.

The $14.5 million project will be funded with monies from state general obligation bonds.

Alignment with UA and MAU Strategic and Academic master plans

KPC is the birthplace of oil industry training in Alaska with classes first offered in 1964. In the 1980s, a 1-year petroleum technology certificate was offered and in 2000, the process technology 2-year AAS degree program was approved. On average, approximately 334 students (duplicated) take process technology, computer electronics and occupational safety and health courses each semester at the Kenai River Campus.

The Career and Technical Center will enable KPC to support Alaska's natural resources industries in an even more robust manner than the college has over the past 46 years. During that time, KPC has trained the overwhelming majority of natural resource extraction workers far surpassing the combined efforts of any other UA and AK Dept. of Labor training institutions.

This project supports the UA Strategic Plan 2009, UA Academic Master Plan (most recent version), UAA 2017 Strategic Plan, KPC Strategic Plan 2008, KPC Facility Master Plan 2009 and KPC Academic Plan 2011-2014. See Appendix A for how the project aligns with these plans.

The KPC Facility Master Plan 2009 states the following with regard to the need for this facility. It is listed as the #1 priority for new KPC buildings.

- "Realistically, with enrollments and programs growing, KPC is out of space. The college lacks the facilities to grow to meet demand."

- The Goodrich Building's petroleum lab and other vocational training are dated to the 1970s. To provide a state-of-the-art education, the campus needs to build a Career and Technical Education Center that was included in the capital budget request submitted to UAA in 2008 and 2009. UAA submitted this as their #1 community campus new construction request to UA Statewide; however, the facility was not included in either year's budget submitted to the Board of Regents. The new facility would employ new technologies, simulators, and industry-standard equipment used for training.

KPC's strategic plan for 2011-2014 is being developed. The college had a 2-day strategic planning retreat in Aug. 2010 where they set new goals and established teams that are now writing objectives and tactics to accomplish the goals. The plan will be published in May 2011.

Statement of Need

The UAA Kenai Peninsula College proposes to build a 15,000 gross square foot Career and Technical Center to house their growing high-demand, workforce development programs in process technology, industrial process instrumentation, computer electronics and occupational safety & health. Industry and student demand for these programs continues to grow. The Alaska Dept. of Labor predicts that from 2008-2018 jobs in the oil and gas extraction industries will increase by 5.7%, and mining, which also incorporates process technology is predicted to increase 17%. Additional space is needed to meet the present and expected future demand for graduates as identified by the Alaska Dept. of Labor and the Alaska Process Industries Careers Consortium (APICC).

APICC's "Priority Occupations Report 2009," assessed employer needs for occupations used in the oil, gas and mining industries through 2016. The report divided occupational needs into three categories: Red/Predicted Shortages, Blue/Concern and Green/Availability.

- **Red or Tier One level** indicates the following: "Shortages are projected to exist in these occupations through 2016. Employers may be unable to fill vacancies. Projects and work maybe halted or delayed due to these shortages."

- **Blue or Tier Two** level indicates: "Employers are projected to find it increasingly difficult to fill these vacancies. Several variables indicate that if the flow of qualified workers in these labor pools does not increase, shortages will result."

- **Green or Tier Three level**: "These occupations are essential to the oil, gas and mining industries. Employers currently do not experience significant difficulty in filling vacancies."

The programs that will be housed in the KPC Career and Technical Center will produce graduates that will fill these jobs or prepare these graduates for such jobs once they have worked in the field and gained additional experience as follows:

- **Red:** Health & Safety Compliance, Maintenance General, Operations Managers & Supervisors

- **Blue:** Instrumentation Inspectors, Drill Rig Operator, Instrumentation, Water/Waste Water Operators

During an APICC audit of the process technology programs at KRC and KPC's Anchorage Extension Site (AES) last fall, Gerry Andrews, AK Dept. of Labor and Workforce Development stated that $1.8 billion in salaries are leaving the state annually via nonresidents that have North Slope jobs and live out of state. He said that the state must grow more of their own workers to decrease this flow.

During this audit meeting, a BP executive said his company will hire at least 100 process operators annually for the next three years. This figure is only for BP and does not include projected hires by Tesoro, ExxonMobil, ConocoPhillips, Shell and the many support contractors.

KRC had 104 process technology majors in Spring 2010 and graduated 25 students; approximately 90% of these students are working in their chosen career field.

In the past decade, BP has hired 84 UA process technology graduates and 119 operator interns. In summer 2010, BP hired 26 new operators, 24 of these were KPC graduates.

ExxonMobil officials have visited KPC twice in the last 18 months to discuss and assess the college's process technology and instrumentation programs. The company is interested in KPC training technicians to work at their Point Thomson project when it becomes operational. They are also interested in the college doing short term training courses during summers.

In June 2010, REC Silicon LLC., in Moses Lake, Wash., visited KRC to interview KPC process technology graduates. They hoped to fill 20 positions. Approximately eight students applied and three accepted offers. There were not sufficient graduates that were looking for work to fill this need and others that were offered positions declined them. REC has indicated they will continue to recruit our graduates. They are considering creating a scholarship program to send WA state students to KPC to pursue our programs and then work for their company.

With the huge oil discoveries and increased exploration occurring in the upper mid-West, it seems likely that the demand for process operators and instrumentation technicians will greatly increase for the foreseeable future. In North Dakota alone, 1,676 new drilling permits were issued in 2010, up from 623 in 2009. In 2011, it is expected that 200 drill rigs will be operating requiring 2,000 new drilling permits. Colorado is experiencing similar exploration growth with almost 6,000 permits issued in 2010. With this increased activity, Alaska could lose employees to new jobs in the Lower 48 increasing the demand for more Alaskan-grown and trained graduates.

This project supports and enhances the UA mandate to its campuses to train Alaskans for Alaska's high demand jobs. Currently the facilities used for the process technology, instrumentation and electronics programs are using laboratories and training equipment that are more than 25 years old. Existing facilities are not equipped with sufficient utility infrastructure to allow for upgrades of the laboratory equipment. Demand from students and industry for these programs exceeds the existing program capacity, which is limited by space.

Program Operational Plan

KPC is responsible for two of the three process technology programs in the University of Alaska system: the programs at the Kenai River Campus (KRC) in Soldotna and at the Anchorage Extension Site (AES) at the University Center. KRC is the only campus in the UA system that offers the Industrial Process Instrumentation AAS degree.

It is expected that the demand for process technology, instrumentation and occupational safety and health programs will continue to grow according to industry officials as mentioned in previous sections. The graying of the workforce, increased drilling activity and technology that is making more oil available in low producing fields will increase the demand for these graduates. Additionally, the reputation of KPC's programs has become apparent as Lower 48 companies are beginning to visit KPC to recruit graduates. In a spring visit to KPC, ExxonMobil called KPC's program the best in the country. Other oil companies have said the same.

The three programs that will be housed in the new facility: process technology, instrumentation and electronics, accounted for 14% of all KPC SCH in AY09. Process technology was the second largest KPC SCH producer with 2,098 and 9.3% of all KPC credits. In Fall 2010 at KRC, these disciplines accounted for 1,117 SCH or 11.4% of total KRC credits.

In response to the high demand for the process technology program, in Spring 2011, KPC is offering the Introduction to Process Technology course via distance with a maximum enrollment of 24; within the first 24 hours of early registration, 20 of those seats were taken. The remaining four seats filled in three days. These are students that admitted to the degree program in Fall 2010, but were unable to take the introductory course at that time since it also filled within days. Since the students that filled the current spring class were all returning, degree seeking students, there is no space for any "new" students to enroll; new students must wait until Fall 2011 to take the introductory course.

Demand is such that students that admit to the program must wait at least one semester to take the introductory course. Once these students take the "gateway" course, they then begin pursuing courses that require hands-on instruction in classrooms and laboratories of which the campus lacks sufficient space to teach additional students to meet industry demand. If additional introductory courses were offered they would overfill the student "pipeline" for the lab-based courses in subsequent years thus resulting in more wait lists since the labs are at maximum capacity now. This would result in students not getting the courses they need when they need them and not graduating on time.

In Fall 2010, there were 314 duplicated students taking 18 process technology sections. Eight of those sections had a maximum enrollment resulting in waiting lists due to lack of space.

In Spring 2011, KRC is offering 27 sections in process technology, electronics technology, occupational safety & health and petroleum technology. Thirteen of these sections were full with waiting lists as of Jan. 5, 2011. More than 431 (duplicated) students have enrolled in the spring sections.

Existing square footage for these programs cannot be expanded without significant negative impacts to other KPC degree programs on campus. The new facility is expected to increase enrollment headroom within the existing programs by up to 25% to help satisfy the demand for process operators and instrumentation technicians. This additional space will also enable KRC to offer more occupational safety & health courses leading to the 2-year degree. KPC is the only college in the UA system that offers this degree.

While KPC's Kenai River Campus (KRC) needs additional space for these programs, the college's Anchorage Extension Site (AES) that provides the process technology and occupational safety and health degrees at the University Center is also short on space and is unable to meet demands.

Facility Needs – New construction/Remodel/back-fill

This new facility will house approximately four laboratories, one multi-function laboratory/shop with a high bay door, four classrooms, six faculty and two staff offices, one conference room, one distance education room and a student commons. The actual number and size of these areas will be developed during the programming and design process. This space will be deliberately planned for flexibility and adaptability to meet the needs of the campus's dynamic program.

Design would allow the cross utilization of the process technology/instrumentation/electronic laboratories, allowing students to easily and quickly move through specific exercises which utilizes the functions of the laboratories which are now located in different buildings. Classroom/lecture space will allow for instruction adjacent to specific laboratories. While some existing laboratory equipment in the Goodrich and Ward buildings would be moved into the new facility, funds for additional lab equipment is included with this request that will enable KPC instructors to teach and train on "state of the art" aids that will ensure graduates are being trained to industry standards. It is estimated the cost of this equipment to be approximately $1.5 million. Upon the move of these programs into the new facility, the vacated space will be redesigned and utilized by other growing programs at KRC that need additional space. These include the KPC paramedic AAS degree program and the UAA KPC nursing AAS degree. KRC art programs and courses have also outgrown available instruction and lab space so this area would be configured to provide additional space for these programs as well.

Upon the move of these programs into the new facility, the vacated space will be redesigned and utilized by other growing programs at KRC that need additional space. These include the UAA KRC nursing AAS degree, KPC paramedic AAS degree program and KPC art program. Planning and design for the backfill is included in this project and UAA has submitted a capital budget request of $1,264,000 in the FY13 budget to complete the renovation.

The UAA Nursing AAS degree program at the Kenai River Campus presently enrolls 14 students with a possible increase to 16 in two years. The current skills lab is 443 sf. The nursing skills lab being built at KPC's Kachemak Bay Campus is 638 sf.; that program has a maximum enrollment of six each year. A new KRC skills lab would optimally be a minimum of 1,500 s.f., almost 1,100 s.f. more than present. UAA receives 40-50 applicants for these 14 KRC slots and the demand for nurses is expected to continue.

The KPC Paramedic AAS program enrolls between 12-16 students each year and operates in a 903 s.f. lab, with 120 s.f. of the space used for two paramedic faculty/staff offices resulting in 780 s.f. of instructional space. However, due to the intensive equipment needs of the program that must be readily available in closets in the room, and various mannequins and gurneys, actual instructional space is less than 600 sf. An appropriate amount of instructional space to adequately teach would be 1,800 s.f., 1,200 more than presently available. Demand for degreed paramedics is expected to increase as emergency medical providers will soon require paramedics to have two year degrees vs. one year certificates.

KRC art courses are now offered in two confined studios. The ceramics studio shares space with the facilities maintenance shop in a high bay area occupying 733 s.f.; the areas are separated by a cyclone fence. When the high bay door is opened in winter to service equipment, art students can be subjected to blasts of winter weather that is not good for them or their projects. Noisy facility equipment repairs are done in the space that frequently interrupts instruction. The space is so cramped that projects are stored on 12 feet high shelves. An additional 750 s.f. of space would decrease the crowding, improve student comfort and safety, enhance instructional quality and enable sculpture classes to be taught at KRC.

The other art courses are held in one studio area that can hold 14 students; however, each time a different art medium is taught the 940 s.f. room must be completely reconfigured—usually 2-3 times daily—by the students and faculty resulting in a loss of 20 minutes or more of instructional time each class period. A smaller 588 s.f. studio is used for surface design classes that work with various processes needing additional space. Three of the eight studio art courses had maximum enrollments in Fall 2010. A combined 2,500 s.f. combined studio space (additional 1,000 s.f.) would allow the art program to grow and preclude the moving of large easels and other art equipment each day.

The KPC Facility Master Plan 2009 provides the following recommendation for these other programs needing additional space:

- Move the emergency medical services and nursing labs and classrooms from the second floor of the Ward and Goodrich Buildings into the area being vacated by the process technology and instrumentation labs on the first floor of the Goodrich building. This would provide badly needed space for these programs.

Planning and design for the renovation of vacated spaces for conversion into offices and classrooms is included in the Total Project Cost. Construction may also be included, if the budget allows. UAA has submitted a capital budget request for $1,264,000 in the FY13 budget to complete the backfill (KPC Kenai River Campus Goodrich and Ward Building Backfill: Capital Budget ID: 340; MAU Project Number: 08-0044).

The preliminary project scope includes:

- Renovate space into properly sized faculty offices, classrooms and laboratories for nursing, paramedic, art and other high demand programs. Work will include upgrades to electrical and data distribution, lighting and mechanical systems.

Deferred Repair and Renewal addressed in this project will include:

- Ward Building (KP105)
  - Seal Exterior Brick Surfaces
  - Flooring Replacement
  - Exterior Door Replacement
  - Electrical Power Upgrade
- Goodrich Building (KP102)
  - Replace Exterior Windows
  - Flooring Replacement

The affected areas of the Goodrich (KP102, built 1974) and Ward (KP105, built 1982) buildings have not been renewed since original construction.

Facility Operation Plan

KRC Facilities and Maintenance will operate the building, managing day-to-day operations, preventive maintenance, custodial and trash service, landscaping, and maintenance and repair. The funding will provide for an additional halftime custodial worker.

Utilities will be provided by Homer Electric Association, Enstar Natural Gas Company, City of Soldotna (water) and an onsite sewer system.

KPC will investigate the feasibility of incorporating alternative energy sources for campus use and educational opportunity during the programming and design process.

Implementation Schedule

DESIGN	
Conceptual Design	June 2010
Formal Project Approval	February 2011
Schematic Design	May 2011
Schematic Design Approval	June 2011
Construction Documents	November 2011
BID & AWARD	
Advertise and Bid	December 2011
Construction Contract Award	February 2012
CONSTRUCTION	
Start of Construction	April 2012
Date of Beneficial Occupancy	April 2013

Financial Plan: cost planning for program and facilities operation, and construction project

The total project budget for construction of the facility is $14.5 million. These funds will be made available from the state by selling general obligation bonds as approved by the passage of

Proposition B in November 2010. The project contains $1.5 million for equipment, funding for design, construction, construction contingency (10%) and construction management.

When the building is complete, KPC's annual operating budget will need additional general funds of $155,000 for maintenance and repair, and $60,000 for operating costs.

If economically feasible, alternative energy sources could be used to reduce utility costs and provide instructional teaching aids.

Communication/Marketing Plan

The KRC programs that will be housed in the new facility are well known across the state and across the nation due to the quality of instruction by faculty that have many years of experience in the industry. Major oil producers in Alaska have stated that the KPC process technology program is the best in the country. In 2008, Chevron donated $500,000 to the KPC programs that will be housed in the new facility. In 2010, BP donated more than $250,000 in equipment and $75,000 in cash for the process technology program. REC Silicon LLC., Moses Lake, Wash., recruited for up to 20 KPC operators in Summer 2010. They hired two as the other graduates had already procured jobs in Alaska. KPC is well recognized by industry and students, and the need for this building has been made clear in briefings over the last two years to BP, Chevron, Shell, ExxonMobil, and Kenai Peninsula state legislators.

The Alaska Process Industries Careers Consortium (APICC) serves as the advisory council to the UA process technology programs and markets the program throughout Alaska. They will begin traveling, along with KPC and UAF process technology instructors, to remote and rural communities, recruiting students for the program. One of the primary goals of all industries that utilize process operators is to hire additional Alaskan natives, other minorities and females. When this facility is completed it will attract these demographic groups in larger numbers than presently enrolled helping to meet industry's demand.

KPC markets the process technology, instrumentation, electronics, and occupational safety & health programs via newspaper and magazine advertising (including the *First Alaskans* magazine distributed at the annual AFN Conference), and through various other mediums including Facebook, Twitter, KPC web site and program brochures. KPC also recruits for these programs in Anchorage, Kenai Peninsula, and AFN through career and college fairs.

Key Personnel involved/roles and responsibilities

UAA Administration

Fran Ulmer, Chancellor
Michael Driscoll, Provost
Bill Spindle, Vice Chancellor for Administrative Services
Chris Turletes, Associate Vice Chancellor, Facilities & Campus Services
John Faunce, Director, Planning and Construction

Summer Suave, Project Manager

KPC Personnel

Gary J. Turner, College Director
Curt Wallace, Director of Administrative Services
Phillip Miller, Facilities/Maintenance Supervisor, On-Site Project Manager
Allen Houtz, Co-chair, Business & Industry Division

Challenges to success and mitigation planning

Funding	
Risk	**Mitigation**
Bond sale failure or scheduling problem	Design and construction schedule altered to fit funding.
Program Goals	
Risk	**Mitigation**
Change of course within user groups leads to change in building space program.	Review and revise project agreement with user group during the design phase to lock in the specifics of the building program.
Turnover in the user group during the design results in delayed decisions	Ensure all users understand the design and construction schedule. Value input from all users in the programming group so they stay fully engaged in the programming and design process. Timely participation is necessary for successful design of the facility
Dissent and disagreement among users that leads to lack of direction.	Use the project agreement and business plan for the basis of design decisions. Facilities Planning and Construction will rely on the College Director for direction when necessary.
Design, Construction and Beneficial Occupancy	
Risk	**Mitigation**
Project grows beyond budget	Use the Design Team and Construction Estimators to track cost as the scope grows. Develop a minimal base project with additive alternates that will allow increased efficiencies in energy, instruction and quality of life items. Manage user expectations from the beginning of the programming design phase.

Design time slippage not allowing for construction and bidding documents to start work in April 2012.	Develop a civil and site work project that could be awarded in advance of building construction contract.
Protest in the solicitation of design or construction Services	Be conscientious of potential protest. Avoid such potentials where possible. Respond to protest quickly, re-solicit quickly if necessary.
Construction estimate exceeds construction budget	Require itemized cost estimates reviews. Perform value engineering on equipment, process, and programs to narrow construction cost scope.
Material or delivery delay	Identify long term and specialty items. Track the progress of these items from submittal through site delivery. Specify readily available "common items."
Labor shortage or union strike during construction	General contractor to provide risk assessment for the potential of this type of delay and the impact to delivery schedule.
Designated site is found unsuitable for construction	The proposed site is per the Campus Master Plan. The total campus land area is 309 acres. There are two other identified future sites in the existing master plan along with significant other land holdings at the campus.
Migratory birds land clearing	Site must be cleared of vegetation prior to May 1. Issue a separate clearing and grubbing contract is necessary. (No clearing and grubbing May 1 thru July 15.)
Extreme cold weather prior to dry-in	Allow for time for lower production associated with winter weather into the construction schedule.
Natural disaster, fire or vandalism damages building under construction	Builder's risk required for the entire project which will mitigate cost and some of the delay cost.
Delay in construction due to design errors and omissions	Identify and prevent errors with adequate design review. Use third party design reviews if problems arise.
Owner supplied equipment and furnishings delay occupancy	Track submittals and progress on delivery of these goods and services. Specify delivery dates in RFQs with delay damages. Take early delivery and store materials if necessary.
City of Soldotna: Delay or failure to issue a Building Permit or Certificate of Occupancy	Ensure building and fire officials are engaged as construction documents are being developed to ensure their official concerns are addressed during design and construction of the facility.
Critical systems: Poor performance or failure delaying occupancy.	Specify adequate testing and certification of critical systems: fire alarm, access control, heating and ventilation, data and communications.
Undocumented historical site	Continue to work closely with State Historic Preservation Office and local entities to document and perform assessments of any newly found site that may be of historic importance.

Appendix A

Alignment with UA and MAU Strategic and Academic Master Plans

A Career and Technical Center at KRC aligns with UA strategic and academic planning documents as follows:

- The Career and Technical Center will help KPC to meet the **existing** student demand for high demand, workforce development, AAS degree programs that will be housed in the new facility: process technology, industrial process instrumentation, electronics, and occupational safety and health.
    - **UA Strategic Plan 2009 Vision**: Meet the educational, cultural, and economic needs of the diverse peoples of Alaska.
    - **UA Strategic Plan 2009 Goals**: Goal 1: Continue placing students in good jobs.
    - **UAA 2017 Vision:**
        - Expanding educational opportunities.
        - Driving Alaska's social and economic development through education and training for workforce development and high-demand careers.
    - **UAA 2017 Priorities:** Priority A**:** Build depth, reinforce success and ensure sustainability in programs that support student success … workforce development, preparation for high-demand careers or respond to high student demand.
    - **UA Academic Master Plan Goals [draft]:**
        - Provide access to excellent postsecondary education at all levels for all Alaskans who can benefit, including those in remote communities and those from underserved populations.
        - Develop Alaska's workforce.
    - **KPC Facility Master Plan 2009**
        - The plan states: "Further configuration of the Goodrich Building will be hindered by structural and infrastructure issues within the building. The life expectancy of this building is approximately 50 years, and by 2015 plans should begin for the removal and replacement in this building," and
        - The Goodrich Building's petroleum lab and other vocational training is dated to the 1970s. To provide a state-of-the-art education, the campus needs to build a Career and Technical Education Center that was included in the capital budget request submitted to UAA in 2008 and 2009. UAA submitted this as their #1 community campus new construction request to UA Statewide; however, the facility was not included in either year's budget submitted to the Board of Regents. The regents' budget has included $1.4 million for a community campus feasibility study that would review new construction projects and prioritize them. Funds for the study have not been approved by the legislature the last two years, but the request is in the FY11 budget request that has been submitted to the governor. The new facility would employ new technologies, simulators, and industry-standard equipment used for training.
    - **KPC Academic Plan 2011-2014**:

        - Continue to support workforce development.
        - Continue to train for high demand jobs.

- The Career and Technical Center will enable **additional** Alaskan students the opportunity to pursue high demand 2-year degree programs so they can procure these jobs in Alaska. Industry demand for these graduates will continue to grow as the workforce continues to age. More than $1.4 billion leaves Alaska annually in non-resident salaries. This facility will enable Alaska industries to hire more Alaskans.
    - **UA Strategic Plan 2009 Vision**: We will develop the state's workforce.
    - **UA Strategic Plan 2009 Goals**:
        - Goal 1:
            - Continue placing students in good jobs.
            - Enhance efforts in student recruitment and retention.
        - Goal 5: Expand vocational/technical training programs in rural Alaska to provide greater employment opportunities for local people.
    - **UAA 2017 Vision:**
        - Expanding educational opportunities.
        - Driving Alaska's social and economic development through education and training for workforce development and high-demand careers.
    - **UAA 2017 Priorities:** Priority A**:** Build depth, reinforce success and ensure sustainability in programs that support student success … workforce development, preparation for high-demand careers or respond to high student demand.
    - **UA Academic Master Plan Goals [draft]:**
        - Provide access to excellent postsecondary education at all levels for all Alaskans who can benefit, including those in remote communities and those from underserved populations.
        - Develop Alaska's workforce.
    - **KPC Academic Plan 2011-2014**:
        - Continue to support workforce development.
        - Continue to work with industry to respond to their training needs.
        - Continue to train for high demand jobs.

- The new facility will provide education and training in vocational and technical areas: process technology, industrial process instrumentation and electronics.
    - **UA Strategic Plan 2009 Mission**: "…the 'community college mission.' This includes providing vocational and occupational instruction…"
    - **UA Strategic Plan 2009 Goals**: Goal 2: Increase the number of programs, course sections, and scheduling options in the areas of vocational/technical training, community interest, and professional workforce development.
    - **UA Academic Master Plan Goals [draft]:** Provide opportunities for continuing education and lifelong learning, including both credit and non-credit courses and other educational activities.

- The new facility will provide an avenue for KPC to continue to partner with industry to develop the next generation of skilled employees.
    - **UA Strategic Plan 2009 Goals**:

        - Goal 1: Continue placing students in good jobs: Increase partnerships with major employers.
        - Goal 5: Build strong partnerships with employers to ensure our graduates possess needed skills and abilities.
    - **KPC Academic Plan 2011-2014**:
        - Continue to work with industry to respond to their training needs.

- Graduates of these programs will be able to successfully compete for high paying jobs in Alaska with starting salaries ranging from $50,000-85,000.
    - **UA Strategic Plan 2009 Vision**: We will develop the state's workforce.
    - **UA Strategic Plan 2009 Goals**: Goal 1: Continue placing students in good jobs.
    - **UAA 2017 Vision:**
        - Expanding educational opportunities.
        - Driving Alaska's social and economic development through education and training for workforce development and high-demand careers.
    - **UA Academic Master Plan Goals [draft]:** Develop Alaska's workforce.

- Graduates of these programs will be employed in the natural resources and technology industries in Alaska. They will be properly trained to ensure successful operations when in the workplace with a particular focus on safety. Unskilled employees in these positions can lead to disasters and the degrading of Alaska's beauty and sustainability. Additionally, the new facility will provide more efficient and renewable energy use through new technology that will also serve as teaching examples.
    - **UA Strategic Plan 2009 Vision**: Demonstrate responsible stewardship of the treasures of the state with which we are entrusted.
    - **UA Strategic Plan 2009 Goals**:
        - Goal 5:
            - Explore new technologies that will create economic development opportunities in rural Alaska.
            - Enhance responsiveness to workforce needs.
        - Goal 6: Create culture of facilities responsiveness to needs and concerns of faculty and students.
    - **UAA 2017 Vision:** Commitment to sustainability and environmental responsibility.
    - **UAA 2017 Priorities:** Priority D**:** Construct and maintain plant and equipment to provide a dynamic, state-of-the-art environment for high quality teaching …
    - **UA Academic Master Plan Goals [draft]:** Engage communities and partner with businesses and industries to achieve a socially, environmentally, and economically sustainable future for Alaskans, communities, the University, and the state.